

# Immunications

Arizona Department of Health Services  
Bureau of Epidemiology and Disease Control Services  
Arizona Immunization Program Office  
150 N. 18th Avenue, Suite 120  
Phoenix, Arizona 85007-3233  
(602) 364-3630  
www.azdhs.gov/pbs/immun/index.htm

**MANAGING EDITOR:**  
Chris Lyons

**EDITORS:**  
Kathy Fredrickson

**CONTRIBUTORS:**  
Daniel Bronson-Lowe, PhD; Jennifer Ralston-King  
Laura Nathan, Cherry Boardman, and Millie Blackstone

If you need this publication in an alternative format, contact the Arizona Immunization Program Office at (602) 364-3630 or 1-800-376-8939 (State TDD/TYY Relay)

Immunications was supported by Grant Number H23/CCH922545 from CDC. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

PRSRT STD  
US POSTAGE  
PAID  
PHOENIX, AZ  
PERMIT NO. 957



# Immunications

A Publication of the Arizona Immunization Program Office



## Hepatitis B Surveillance

By Laura Nathan, MPH  
Hepatitis B Epidemiologist

Hepatitis B virus (HBV) infection is a serious global health problem, with 2 billion people infected worldwide. Internationally, it remains the 10th leading cause of death due to cirrhosis and hepatocellular carcinoma. Although chronic hepatitis B is less prevalent in Western countries, such as the United States (Figure 1), thousands of new, acute cases continue to be reported each year. Many people, particularly infants and children, with acute hepatitis do not clear the virus from their system, causing a chronic infection. The Centers for Disease Control and Prevention (CDC) estimates that 1.2 million Americans currently have chronic HBV infection and are sources for HBV transmission to others. However, while chronic hepatitis remains high, the incidence of new, acute hepatitis B cases has steadily declined nationally since the 1980s, especially among vaccinated children (Figure 2).

While acute cases have declined on a national level, surveillance in Arizona depicts the opposite: a gradual upward trend of acute hepatitis B cases from 1999 to 2006 (Figure 3). Although the number of acute cases has risen in recent years, this rise may be an artifact of reporting and lack of appropriate investigations. Proper funding has not been in place to investigate the majority of the cases and determine the epidemiology of hepatitis B in Arizona and whether these new cases represent true hepatitis B infections.

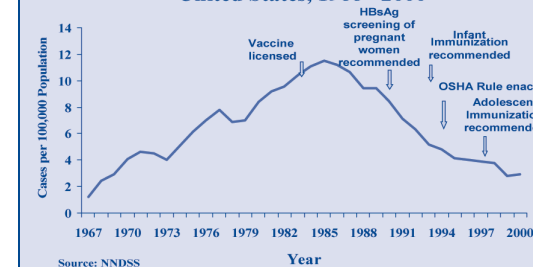
Figure 3: Reported Cases of Acute Hepatitis B in Arizona by Year



Figure 1: Geographic Distribution of Chronic HBV Infection



Figure 2: Rates of Acute Hepatitis B by Year, United States, 1966 - 2000



The Arizona Department of Health Services (ADHS) has established new initiatives and added staff during 2007 to enhance investigations of hepatitis B in Arizona. As a result of these measures, the percent of reported hepatitis B cases where race was unknown has decreased due to thorough investigations (Figures 4 and 5). By incorporating how hepatitis B is distributed by race from Figure 5 into future immunization programs, administrators may modify or add certain targeted hepatitis B vaccination clinics designed to protect those shown to be most at risk for acute infection.

(Continued on page 5)

## In This Issue

- Hepatitis B Surveillance
- National Immunization Survey
- Assessment Results of 2006 Providers, Coconino and Yavapai Counties
- Updates from AZ Immunization Program Vaccine Center
- Save the Date
- 2006-07 Influenza & RSV Season Summaries
- Summary of Reportable Vaccine-Preventable Diseases
- AZ VFC Adolescent Provider Recruitment Project
- 14th Annual Immunization Conference Overview

## Inserts

- A DTaP VIS
- B 2007-2008 SCHOOL / CHILD CARE IMMUNIZATION RULES SUMMARY
- C REGISTRATION FORM - 2<sup>ND</sup> ANNUAL AZ ADOLESCENT & ADULT VACCINE SYMPOSIUM
- D ASIIS WEB APPLICATION TRAINING
- E 2007 Dr. Daniel T. Cloud Award Winners



FALL 2007

## IN THIS ISSUE

- 2 National Immunization Survey
- 3 Assessment Results of 2006 Providers, Coconino and Yavapai Counties
- 4 Updates from AZ Immunization Program Vaccine Center
- 5 Save the Date  
Hepatitis B Surveillance Continued
- 6 2006-07 Influenza & RSV Season Summaries  
Summary of Reportable Vaccine-Preventable Diseases
- 7 AZ VFC Adolescent Provider Recruitment Project  
14th Annual Immunization Conference Overview

## INSERTS

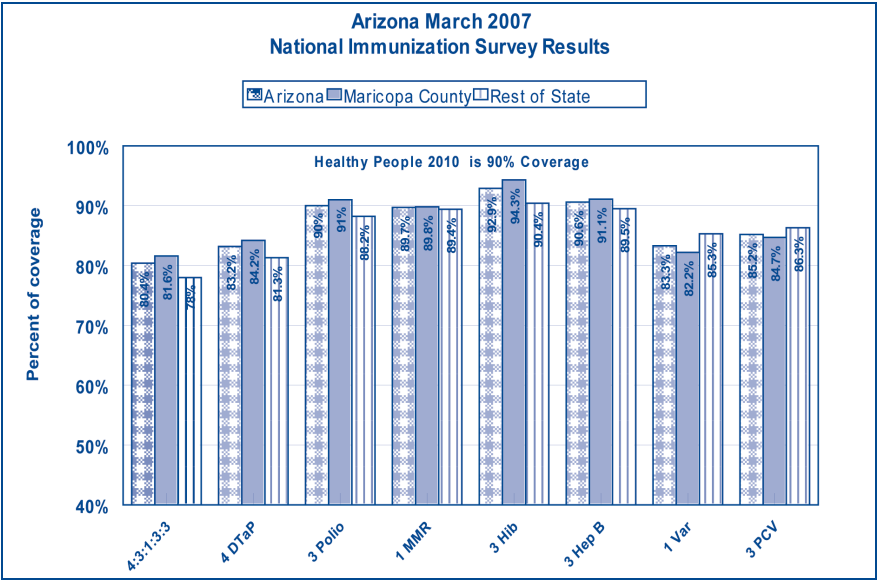
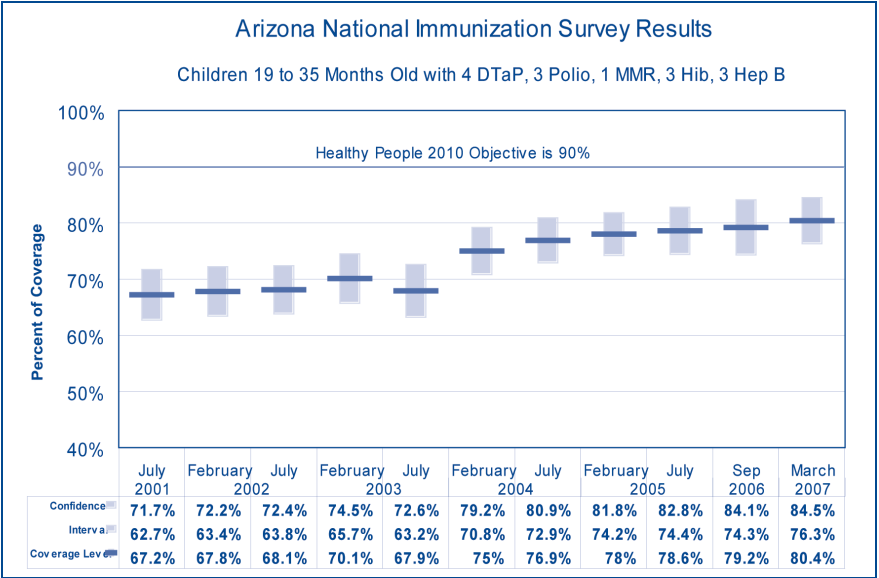
- A DTaP VIS
- B 2007-2008 SCHOOL / CHILD CARE IMMUNIZATION RULES SUMMARY
- C REGISTRATION FORM - 2<sup>ND</sup> ANNUAL AZ ADOLESCENT & ADULT VACCINE SYMPOSIUM
- D ASIIS WEB APPLICATION TRAINING
- E 2007 DR. DANIEL T. CLOUD AWARD WINNERS

National Immunization Survey (NIS)  
Shows Arizona's Progress

By Jennifer Ralston-King, Immunization Assessment Coordinator

The Centers for Disease Control and Prevention released the latest results of the National Immunization Survey (NIS) in March. The data released in March was collected from the third quarter of 2005 through the second quarter of 2006 on children born from July 2002 through January 2005.

The graph below illustrates Arizona's progress in reaching the Healthy People 2010 objective of 90% coverage for each of the following vaccines: DTaP #4, Polio #3, MMR #1, Hib #3 and Hep B #3. The coverage level has increased more than a full percentage point, from 79.2% to 80.4%, since the September 2006 NIS results were announced.



Arizona Vaccines for Children (VFC) Adolescent Provider Recruitment Project

By Cherry Boardman, RN, MSN  
Vaccine Center Manager

Recent recommendations for immunizing adolescents and women have been published in the December issue of Obstetrics & Gynecology by the American College of Obstetricians and Gynecologists (ACOG). The updated recommendations include adding vaccinations for human papilloma virus (HPV); tetanus, diphtheria, and pertussis (Tdap); and meningococcal (MCV4) as part of routine preconception care. The Centers for Disease Control (CDC) is encouraging that all adolescent health care providers provide these and other vaccines to the adolescent population.

In an effort to encourage and increase the vaccination of adolescents, CDC has provided funding for a project targeted at the recruitment of adolescent providers into the VFC program. The project has three main goals.

- 1) Increase the number of OB/GYN and other adolescent providers into the Arizona VFC Program.

- 2) Increase health care professional knowledge on vaccinations recommended for adolescents, pregnant women, and post partum women.
- 3) OB/GYN providers will begin administering ACIP recommended vaccine to pregnant women.

Professional health care staff will be hired to coordinate the project activities. Some activities of the project will include: development of immunization educational material for adolescent providers, participation in conferences and trainings focused on adolescent care, contacting OB/GYN and adolescent providers to provide immunization education and information regarding the VFC program.

To provide optimal care for the adolescent population, all OB/GYN and adolescent providers are encouraged to enroll in the VFC program. For further information about participation in the VFC program, please contact the Vaccine Center office at (602) 364-3644.

14th Annual Immunization Conference Overview  
Another Big Success for Immunizations

By Millie Blackstone, RN, MPH  
Special Programs Manager

Over 300 people attended the 14th Annual Immunization Conference on April 25th and 26th at the Black Canyon Conference Center. There were excellent speakers including:

Andrew Kroger, MD, MPH, Medical Epidemiologist from the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC), gave an excellent update on immunizations.

Kristine Sheedy, PhD, Acting Deputy Associate Communication Science from the CDC, gave an informative presentation on "Vaccine Risk Communication".

Laurene Mascola, MD, MPH, FAAP, Chief of the Acute Communicable Disease Control Program for the Los Angeles County Department of Public Health, spoke on "Vaccines and Cancer Prevention".

Peter Kelly, MD, FACP, Infectious Disease Specialist at the Arizona Department of Health Services (ADHS), gave a lecture on "The Value of Vaccines".

Karen Lewis, MD, Chief Medical Officer, Epidemiology and Disease Control Service at ADHS discussed the "Clinical Aspects of Vaccine Preventable Infectious Diseases".

Jennifer Tinney, Program Coordinator for The Arizona Partnership for Immunization explained how to create an immunization friendly office environment.

Overall the evaluations indicated an overwhelming positive learning experience in which all the objectives were met during this two day educational event.

If you are interested in attending the 2nd Annual Adolescent/Adult Vaccine Symposium scheduled for September 27, 2007 at the Black Canyon Conference Center, complete the registration form included in this packet or contact Becky Burkhart in the ADHS Immunization Office at 602-364-3646.

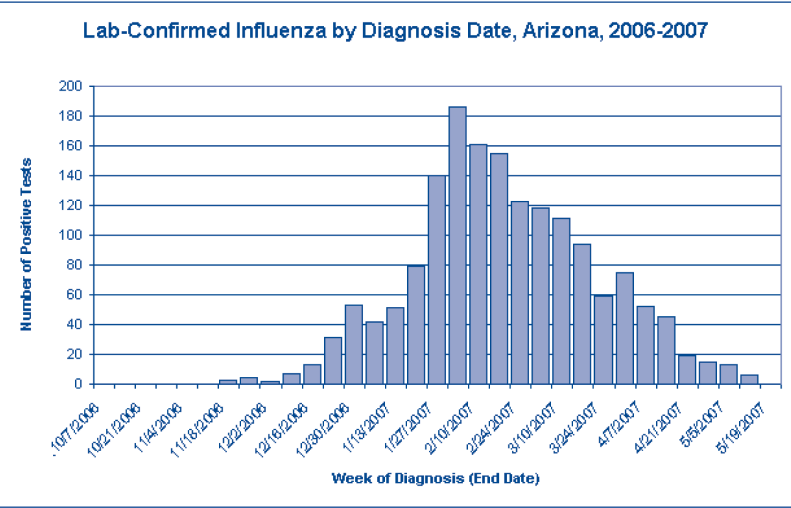




2006 - 2007 Influenza and RSV Season Summaries

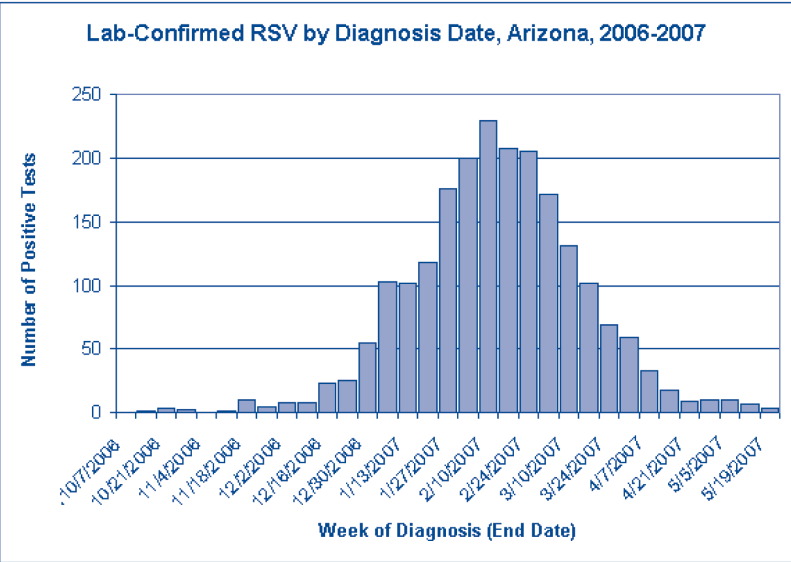
By Daniel Bronson-Lowe, PhD, Vaccine Preventable Disease Epidemiologist

Arizona's 2006-2007 influenza season was considerably milder than the previous one. Fewer than 1,650 laboratory-confirmed influenza cases were reported to Arizona Department of Health Services (ADHS) between October 1, 2006, and May 19, 2007, compared to the more than 5,100 cases reported during the 2005-2006 season.



The peak of the 2006-2007 influenza season occurred in late January and early February. Influenza A was the predominant strain across the majority of the season, accounting for 76% of Arizona's 1,469 typed cases. Influenza B was responsible for the remaining 24% of the typed cases.

More than 2,200 laboratory-confirmed RSV cases were reported to ADHS during the 2006-2007 season. Cases peaked in early February.



These graphs and other Arizona influenza and RSV surveillance data are available through the Arizona Department of Health Services website at <http://www.azdhs.gov/phs/oids/epi/flu/index.htm>.

SUMMARY OF REPORTABLE VACCINE-PREVENTABLE DISEASES

January-April, 2007 <sup>1,2</sup>

	Jan - Apr 2007	Jan - Apr 2006	Jan - Apr 5 Year Median
Measles	0	0	0
Mumps	1	0	1
Rubella (Congenital Rubella Syndrome)	0 (0)	0 (0)	0 (0)
Pertussis (confirmed)	107 (5)	255 (16)	87 (31)
Haemophilus influenzae, serotype b invasive disease (<5 years of age)	0 (0)	1 (0)	1 (0)
Meningococcal infection, invasive	8	9	16
Streptococcus pneumoniae, invasive	527	453	346
Hepatitis A	81	67	84
Hepatitis B, acute	120	117	105
Hepatitis B, non-acute	350	363	367

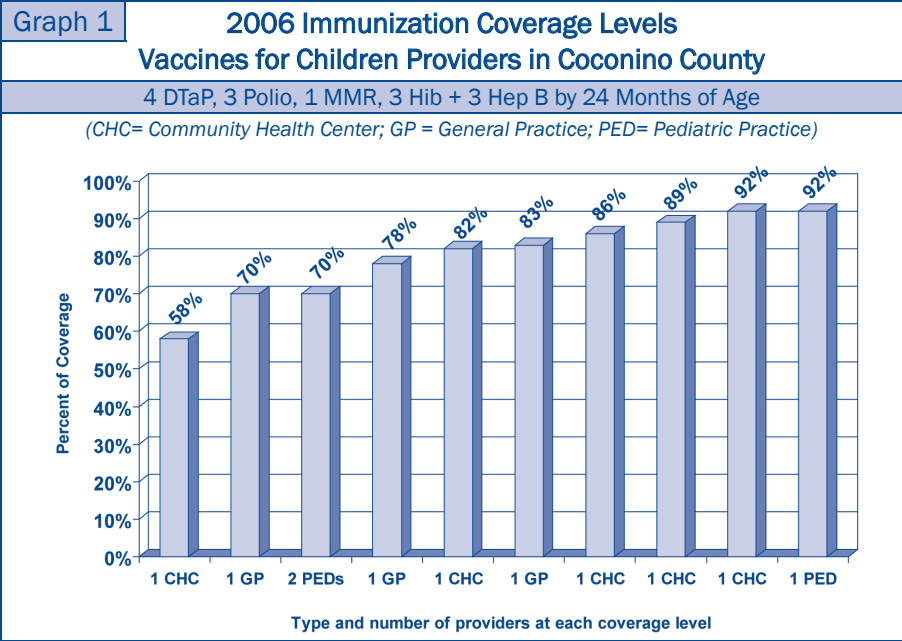
Assessment Results of 2006 Site Visits to Providers

In Coconino and Yavapai Counties

By Jennifer Ralston-King, Immunization Assessment Coordinator

In Coconino and Yavapai counties, a total of twenty-two Vaccines for Children (VFC) providers received comprehensive assessments of the immunization coverage levels of their two-year-old patients. Results of Coconino County assessments are displayed in Graph 1 and results of Yavapai County assessments are in Graph 2. The type of provider is abbreviated in the graphs. PED is used to indicate a pediatric practice; CHC is used for community health center; and GP is used for general or family practice.

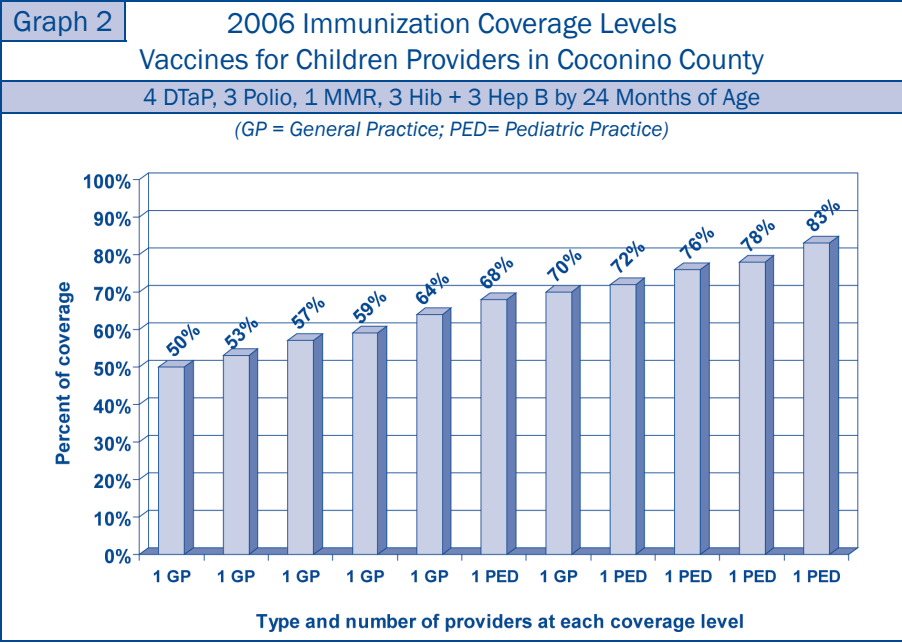
The assessments were conducted by AFIX (Assessment, Feedback, Incentive, eXchange) team members of the Arizona Immunization Program Office (AIPO) and site reviewers employed TMF Health Quality Institute (TMF). AIPO contracted TMF to conduct site visits to VFC providers in 2006. TMF will continue to conduct quality assurance reviews and assessments at VFC provider offices in 2007.



At each assessment site visit, the immunization histories of 24 to 35 month old children were entered into the CDC-designed program, Clinic Assessment Software Application (CASA) for analysis. CASA was used to generate reports showing the number and percentage of children who received 4 DTaP, 3 Polio, 1 MMR, 3 Hib and 3 Hep B (4:3:1:3:3) by 24 months of age. CASA was also used to diagnose such problems as missed opportunities to immunize. In CASA, a "missed opportunity" occurs when a child who is behind on immunizations fails to receive all age and interval appropriate vaccines on the same day.

According to 2006 immunization assessments, seven Coconino County providers and one Yavapai County provider reached coverage levels above the National Immunization Survey estimate of 80% for 4 DTaP, 3 Polio, 1 MMR, 3 Hib and 3 Hep B (4:3:1:3:3) in Arizona. Congratulations to those providers who are doing an excellent job of protecting children from vaccine-preventable diseases!

All immunization providers are encouraged to utilize the CDC-approved "Catch-Up Immunization Schedule for Persons Aged 4 Months-18 Years Who Start Late or Who Are More Than 1 Month Behind." Using the "Catch-Up" schedule is one of the most effective strategies for increasing the number and percentage of children who complete the recommended series of immunizations by two years of age.



MMR-V Vaccine

Earlier this year, Merck &Co., Inc., notified the CDC that the yield of varicella-zoster virus used to produce varicella (Varivax®), MMR-V vaccine (ProQuad®), and zoster vaccines (Zostavax®) was lower than expected. As a result, Merck has prioritized the production of varicella and zoster vaccines over the production of MMR-V vaccine. Recently, Merck announced that ProQuad® will be unavailable beginning in June and is expected to remain unavailable for rest of 2007.

Providers should submit orders for M-M-R and varicella vaccines. Varicella vaccine will be shipped directly from Merck and the M-M-R vaccine will continue to be shipped along with regular vaccine shipments from the Vaccines for Children (VFC) Program's national distributor, McKesson Specialty.

Varicella Vaccine

- A documented history of chickenpox disease is acceptable for school immunization requirements and vaccination is not needed.
- The first dose should be administered at 12-15 months of age; the second dose is recommended at 4-12 years of age (i.e., before a child enters kindergarten or first grade).
- Children who receive varicella #1 at school entry (4-6 years) can receive varicella #2 three (3) months later. However, if the second dose was administered at least 28 days following the first dose, the second dose does not need to be repeated.
- A second varicella dose is not a requirement for school entry unless the student was 13 years of age or older when varicella #1 was administered.
- Individuals ≥ 13 years of age, without evidence of immunity to varicella, should receive two doses of varicella vaccine 4-8 weeks apart.

Influenza

The Vaccine Center mailed out the "Initial Influenza Order Forms" in July. If you did not receive your packet please call the Vaccine Center Office at 602-364-3642 and ask for a packet to be mailed to you. The "initial order" was due back by August 3<sup>rd</sup>, 2007.

- Intranasal flu vaccine (FluMist) is now stored in the refrigerator. It should not be exposed to temperatures 32° F (0° C) or below.

- Providers may order additional flu vaccine using the influenza order form, which records the doses administered and the does on hand, along with a temperature log.
- **New Influenza Vaccine Recommendation for 2007-08:** A child less then 9 years of age, who received only one dose of flu vaccine in their first year, will need two doses of flu vaccine the second year.

Vaccine Management Business Improvement Project (VMBIP)

Providers have identified some issues with the new system. Vaccine delivery is generally taking longer than anticipated. When placing an order, please allow two weeks to receive the vaccine. Keep enough vaccine on hand to last until your vaccine order is received. Additionally, providers report they are receiving small quantities of vaccine in large packing containers, creating a storage problem for some providers. McKesson has been informed of this issue. Please continue to inform the Vaccine Center of any shipping issues that occur with the new system.

The Next Step in the VMBIP Process

Arizona VFC providers began their conversion to the new vaccine ordering process, VMBIP, on April 30, 2007. Since that time, providers have been assigned new vaccine ordering schedules and a new vaccine distributor. McKesson has begun vaccine distribution to all Arizona VFC providers, and new or revised forms and reports are now being used. The transition has generally been smooth, due in great part to provider cooperation and patience. The state immunization program will continue to work closely with providers to answer questions and provide guidance as needed.

Electronic Vaccine Ordering

Within the next year, Arizona will phase in an automated vaccine ordering system, Vaccine Ordering Management System (VOMS) through the Arizona State Immunization Information System (ASIIS). ASIIS VOMS will be used to order vaccines online, and to use other vaccine management and reporting functions. The end goal is for ASIIS VOMS to provide "one-stop-shopping" to meet all vaccine ordering, management and reporting needs.

Stay tuned for more information on these exciting developments. If you have questions or would like more information about VMBIP and future plans, please call Cherry Boardman or Carole Boble at 602-364-3642.

Save the Date

- ★ **August 9<sup>th</sup>, 2007: Immunization Update 2007** - A live Satellite Broadcast & Webcast from the CDC. Two broadcast times: 9:00 - 11:30 am EDT and 12:00 - 2:30 pm EDT  
Visit <http://www2.cdc.gov/PHTN/calendar.asp#Aug07> for updated information
- ★ **September 27<sup>th</sup>, 2007: 2<sup>nd</sup> Annual Arizona Adolescent and Adult Vaccine Symposium** - The one-day symposium will be held in Phoenix at the Black Canyon Conference Center, 9440 N. 25th Avenue. (See Registration Form insert)

(Hepatitis B continued)

Arizona received reports of 1,101 new cases of chronic hepatitis B in 2006. ADHS is also increasing efforts to educate and interview chronic hepatitis B cases to better understand risk factors associated with chronic hepatitis B infection in Arizona and to prevent additional spread of hepatitis B. ADHS has partnered with the Asian Pacific Community in Action (APCA) Coalition to conduct targeted interventions, including testing, education, and case management, in the Asian community due to high rates of chronic hepatitis B in this community; the rate of hepatitis B among Asians in Arizona is almost 30 times that of White Arizonans (Figure 6). To learn more about national statistics and information on the hepatitis B vaccine, you may visit the CDC website at [www.cdc.gov](http://www.cdc.gov).

